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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,896	02/01/2001	David H. Thibado	PHA 23,583C	8582

7590 07/17/2002  
Michael E. Marion  
Corporate Patent Counsel  
U.S. Philips Corporation  
580 White Plains Road  
Tarrytown, NY 10591

EXAMINER

NGUYEN, TUYEN T

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/773,896

Applicant(s)  
Thibado

Examiner  
Tuyen T. Nguyen

Art Unit  
2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2, 4-12, 15, and 16 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2, 4-12, 15, and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:
  - Applicant should list the related applications and co-pending applications.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 2, 4-12 and 15-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, there lacks sufficient structure to support the functional language of “means...for pickup with a vacuum head of a pick-and-place machine, and adapted for adjusting a position of the loops of the coil..., after the coil attached to the circuit board.” Applicant should clarify how the “one or more coils” are part of the circuit board. The limitation of “one or more coils” is not further limiting. Applicant should clarify how the “multiple terminals” and the “pick-up means” are part of the circuit board. The limitations of “multiple terminals” and the “pick-up means” are not further limiting. Claims 4-12 and 15-16 inherit the defect of the parent claim.

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Regarding claim 4, there lacks sufficient structure to support the functional language of the surface includes a portion which *can be removed* from the wire coil.

Regarding claim 5, applicant should clarify what is intended by "the surface does not extend *between all* of the loops of the coil."

Regarding claim 6, there lacks sufficient structure to support the functional language of "which the surface extends *can be easily bent* to adjust a position of the loops..."

Regarding claim 7, there lacks sufficient structure to support the functional language of "in which the surface is degraded by exposure to a solvent that *can be used* to wash the circuit board after the board is connected to the circuit board." There no antecedent basis for "the board." Applicant should clarify the arrangement of "the board" relative to the "circuit board." The phrase "whereby" is indefinite because it has been held that the functional "whereby" statement does not define any structure and accordingly can not serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957). There lacks sufficient structure to support the functional language of "the loops *can be bent* to adjust a position of the loops ..."

Regarding claim 8, there lacks sufficient structure to support the functional language of "the surface is degraded by exposing the surface to water and at least a portion of a material of the surface *can be removed by washing* in water ..."

Regarding claim 9, there lacks sufficient structure to support the functional language of "there surface is degraded by heating the circuit board *after* which the separation between the loops

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*can be changed* by bending the loops...” There no antecedent basis for “the separation between the loops.”

Regarding claim 10, there lacks sufficient structure to support the functional language of “the material of the surface flows...so that after heating the circuit board to reflow the solder at least some of the loops become bendable ...”

Regarding claim 11, there lacks sufficient structure to support the functional language of “the material of the surface *sublimates* ... so that after reflow soldering the circuit board at least some of the loops become bendable..”

Regarding claim 12, there lacks sufficient structure to support the functional language of “...so that it can be easily cut between loops of the coil using a tool without... and then a position of the loops of the coil *can be adjust*...”

Claim 15 lacks sufficient structure to support the functional language of the claimed method steps.

Regarding claim 16, there no antecedent basis for “the coils.”

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 2, 4-12 and 15-16, *as best understood in view of the rejection under 112 second paragraph*, are rejected under 35 U.S.C. 102(b) as being anticipated by Bernstein [US 4,866,573].

Bernstein discloses a printed circuit board comprising:

- a substrate [15];
- a plurality of conductive pads disposed on the structure being connected by plurality of conductive wires [see figure 1A];
- a coil structure [1] including one or more coil of wire [2] bent into a plurality of sequential loops; and
- a plurality of terminals [3, 4, 5, 6, 7, 8].

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tuyen T. Nguyen whose telephone number is (703) 308-0821.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Elvin Enad, can be reached at (703) 308-7619. The fax number for this Group is (703)872-9318 before the final office action, if the response is after final office action the fax number is (703)872-9319.

Any inquiry of a general nature or relating to status of this application of proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

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TTN

~~May 29~~, 2002  
July 12

*Jayla T. Nguyen*